

FAA-C-2153  
October 15, 1964

FEDERAL AVIATION AGENCY SPECIFICATION

INSTALLATION OF SANITARY SYSTEM  
GAS INCINERATOR TYPE

1. SCOPE

1.1 Scope.- This specification covers the installation of a gas fired incinerator type sanitary system for use in FAA facilities.

1.2 Classification. - Class 1 - L.P. (liquid petroleum) Gas Service  
Class 2 - Natural Gas Service

2. APPLICABLE SPECIFICATIONS, STANDARDS, AND OTHER PUBLICATIONS

2.1 FAA specifications.- The following FAA specification of the issue specified in invitation for bids, requests for proposals, or contracts, forms a part of this specification:

FAA-C-1217      Electrical Work, Interior

2.2 Other publications.- The following publications form a part of this specification:

NFPA Bulletin 54 dated 1959 - Installation of Gas Appliances  
and Gas Piping

NFPA Bulletin 211 dated 1961 - Chimneys, Flues and Vents

(Copies of this specification and of the applicable FAA specification may be obtained from Federal Aviation Agency, Washington, D.C. 20553, ATTN: Contracting Officer. Requests should fully identify material desired, i.e., specification numbers, dates, amendment numbers, complete drawing numbers; also requests should state the contract involved or other use to be made of the requested material).

(Requests for information on obtaining copies of NFPA Bulletins 54 and 211 should be directed to National Fire Protection Association, 60 Batterymarch Street, Boston 10, Massachusetts).

(When ordering copies, references should be made to the publication title, identifying number or symbol and date).

### 3. REQUIREMENTS

3.1 Materials and workmanship.- The rules, regulations, and reference specifications enumerated herein shall be considered as minimum requirements and shall not prohibit the contractor from furnishing higher grades of material and workmanship than specified herein.

3.1.1 Materials.- The contractor shall supply and install all materials required to provide a complete operating sanitary system. Materials shall be new, the standard products of manufacturers regularly engaged in the production of such equipment and the manufacturer's latest designs that comply with the specification requirements.

3.1.2 Workmanship.- All installation work shall be done by experienced men regularly engaged in this type of work. Where required by the local Government, the workmen must have a current license to engage in this type of work.

3.2 Toilet.- The toilet shall be Destroilet Model L15 B or equal, back vented, gas fired for operation on 115 volt AC power as manufactured by La Mere Industries of Walworth, Wisconsin and available from Combustion Products Distributors Corporation of Washington, D.C. The toilet shall be Class 1 or Class 2 as specified in the Invitation for Bid.

3.2.1 Class 1 toilet.- Class 1 toilets shall be equipped for use of L.P. gas with an inlet fuel pressure of 11 inches water column.

3.2.2 Class 2 toilet.- Class 2 toilets shall be equipped for use of natural gas with an inlet fuel pressure of 6 inches water column.

### 3.3 Installation

3.3.1 Facilities with conventional roof.- The incinerator toilet shall be installed in the toilet room shown on the applicable facility drawings. The vent stack shall be run vertically through the roof of the facility terminating with a suitable vent cap. The roof shall be properly flashed and sealed to prevent the entrance of water into the interior of the building.

3.3.2 Buildings with counterpoise roof.- The incinerator toilet shall be installed in the toilet room shown on the applicable facility drawings. The vent stack shall be run through the ceiling of the toilet room to the counterpoise structural beams thence horizontally to the edge of the counterpoise. The stack shall terminate in a 90 degree elbow with a vent cap to prevent the entrance of rain water. The top of the vent cap shall be below the level of the top of the counterpoise. The vent shall be positioned so that it will not interfere with the azimuth ground check positioner brackets (VORTAC, VOR, or TVOR Facilities) located on the periphery of the counterpoise.

3.3.3 Curtain wall.- An asbestos board curtain wall shall be erected to prevent mechanical damage to the vent stack by the toilet seat and to prevent the toilet user from accidentally contacting the hot vent stack during use of the toilet. The wall shall extend to approximately 6 feet above the finished floor from a position directly above the toilet vent pipe opening.

### 3.3.4 Gas service

3.3.4.1 Class 1.- Two 100 pound bottles, or equivalent, shall be furnished and installed on a suitable platform outside the building. A pressure regulator shall be furnished to supply gas to the unit at 11 inches water column. Gas piping shall be installed in accordance with NFPA Bulletin 54. A rain hood shall be installed to protect the gas tank valves and pressure regulator.

3.3.4.2 Class 2.- A pressure regulator shall be furnished to supply natural gas to the unit at 6 inches water column. Gas piping shall be installed in accordance with NFPA Bulletin 54.

3.3.5 Electric service.- The toilet unit shall be connected to the 115 volt, 20 ampere power source indicated in the facility drawings for the toilet room water pump, or other suitable 20 ampere power source. Connect neutral lead to white wire or terminal stamped "neutral". Connect hot wire to the remaining terminal. Run a ground wire from the ground lug located at the lower left rear corner to a ground in accordance with Specification FAA-C-1217. All electrical work shall be installed in accordance with Specification FAA-C-1217.

3.3.6 Vent piping.- Vent piping shall be type B double wall flue material with stainless steel liner, Dura-Vent or equal. Four inch pipe shall be used for equivalent lengths of 25 feet or less and five inch pipe shall be used for equivalent lengths up to 75 feet. In computing equivalent lengths use the following values:

90° Elbow - 5 feet  
Vent Cap - 3 feet  
Straight Pipe - 1 foot per running foot

Dura-Vent vent pipe and associated hardware is available from Combustion Products Distributors Corporation, Washington, D.C. Straight pipe is available in 6 inch, 12 inch, 18 inch, 3 feet, and 5 feet lengths. Ninety degree and 45 degree elbows, vent collar connectors and vent caps are also available from the aforementioned source.

A thimble concentric with the flue and providing not less than 1 inch clearance from combustible material shall be used when the flue passes through combustible material. Piping shall be suitably anchored to prevent contact with flammable structures.

3.3.7 Paper holder.- A toilet paper holder shall be installed in a readily accessible position near the water closet.

3.4 Operating and maintenance instructions.- Necessary instructions for the operation of the toilet shall be posted in a prominent location in the toilet room. Each unit shall be provided with two copies of necessary service and maintenance instructions.

#### 4. SAMPLING, INSPECTION, AND TEST PROCEDURES

4.1 Inspection.- The complete installation shall be subject to inspection by the resident Government engineer for conformance with specification requirements.

4.2 Tests.- The burner controls shall be set in accordance with the timing period recommended by the toilet manufacturer. The complete sanitary system shall be subjected to operating tests for 6 days and demonstrated to effectively remove all human wastes and paper with the exception of the residual accumulation of dry ash. The contractor shall arrange and pay for any permits, inspections, or certifications required by the local authorities. The toilet shall perform during this test in the sequence of operation outlined by the manufacturer.

5. PREPARATION FOR DELIVERY

Not applicable.

6. NOTES

6.1 Note on information items.- The subparagraph below is only for the information of the Contracting Officer intended to assist him in formulating a contract. It is not a contract requirement, nor is binding on either the Government or the Contractor, except to that extent that it may be specified elsewhere in the contract as such. Any reliance placed by the Contractor on the information in this subparagraph is wholly at the Contractor's own risk.

6.2 Ordering information.- The Contracting Officer shall include the following information in the Invitation for Bid:

- a. Class of toilet
- b. Architectural, structural, and electrical drawings of the specific facility involved, sufficient for the Contractor to determine specific requirements for the sanitary system installation.

\* \* \* \* \*

23068